

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1. (Original): A method for continuously producing a synthetic resin film comprising at least the following steps (A) to (C):

(A) a step of continuously flow-casting and applying a composition containing a polymer and an organic solvent onto a support to form a gel film;

(B) a step of stripping the gel film from the support and fixing both ends of the gel film; and

(C) a step of transporting the film with both ends being fixed in an oven, wherein step (C) comprises at least a substep (C-1) of transporting the film with both ends being fixed so that substantially no tension is applied in the width direction (transverse direction (TD direction)) of the film.

2. (Original): The method for producing the synthetic resin film according to Claim 1, wherein, in step (C), both ends are fixed so that substantially no tension is applied in the TD direction at an entrance of the oven.

3. (Original): The method for producing the synthetic resin film according to Claim 2, wherein the oven comprises at least two oven units and a temperature of a first oven unit is set at 300°C or less.

4. (Currently Amended): The method for producing the synthetic resin film according to ~~any one of Claims 1 to 3~~ Claim 1, wherein, in step (C), both ends are fixed so that the distance

X between the fixed ends and the width Y of the film between the fixed ends satisfy the following formula:

$$20.0 \geq (Y - X)/Y \times 100 > 0.00$$

5. (Currently Amended): The method for producing the synthetic resin film according to ~~any one of Claims 1 to 4~~ Claim 1, wherein ~~step (C) comprises a substep (C-2) of stretching the film in the TD direction.~~

in step (C), both ends are fixed so that substantially no tension is applied in the TD direction at an entrance of the oven, and

the oven comprises at least two oven units and a temperature of a first oven unit is set at 300°C or less, and

in step (C), both ends are fixed so that the distance X between the fixed ends and the width Y of the film between the fixed ends satisfy the following formula:

$$20.0 \geq (Y - X)/Y \times 100 > 0.00$$

6. (Currently Amended): The method for producing the synthetic resin film according to Claim ~~[[5]] 1~~, wherein ~~[[,]] in substep (C-2), the film is stretched in the TD direction so that the distance Z between the fixed ends in the TD direction before the film is stretched and the distance W between the fixed ends after the film stretched satisfy the following formula:~~

~~40.0 ≥ (W - Z)/Z × 100 > 0.00~~ step (C) comprises a substep (C-2) of stretching the film in the TD direction.

7. (Currently Amended): The method for producing the synthetic resin film according to ~~any one of Claims 1 to 6~~ Claim 6, wherein ~~the synthetic resin film is a polyimide film, in substep~~

(C-2), the film is stretched in the TD direction so that the distance Z between the fixed ends in the TD direction before the film is stretched and the distance W between the fixed ends after the film stretched satisfy the following formula:

$$\underline{40.0 \geq (W - Z)/Z \times 100 > 0.00}$$

8. (Currently Amended): ~~A synthetic resin film produced by the method for producing the synthetic resin film according to any one of Claims 1 to 7~~ The method for producing the synthetic resin film according to Claim 1,

wherein:-

in step (C), both ends are fixed so that substantially no tension is applied in the TD direction at an entrance of the oven, and

in step (C), both ends are fixed so that the distance X between the fixed ends and the width Y of the film between the fixed ends satisfy the following formula:

$$\underline{20.0 \geq (Y - X)/Y \times 100 > 0.00, \text{ and}}$$

step (C) comprises a substep (C-2) of stretching the film in the TD direction, and

in substep (C-2), the film is stretched in the TD direction so that the distance Z between the fixed ends in the TD direction before the film is stretched and the distance W between the fixed ends after the film stretched satisfy the following formula:

$$\underline{40.0 \geq (W - Z)/Z \times 100 > 0.00.}$$

9. (New): The method for producing the synthetic resin film according to Claim 1,
wherein:

in step (C), both ends are fixed so that substantially no tension is applied in the TD direction

at an entrance of the oven, and

the oven comprises at least two oven units and a temperature of a first oven unit is set at 300°C or less, and

in step (C), both ends are fixed so that the distance X between the fixed ends and the width Y of the film between the fixed ends satisfy the following formula:

$$20.0 \geq (Y - X)/Y \times 100 > 0.00, \text{ and}$$

step (C) comprises a substep (C-2) of stretching the film in the TD direction, and

in substep (C-2), the film is stretched in the TD direction so that the distance Z between the fixed ends in the TD direction before the film is stretched and the distance W between the fixed ends after the film stretched satisfy the following formula:

$$40.0 \geq (W - Z)/Z \times 100 > 0.00$$

10. (New): The method for producing the synthetic resin film according to Claim 1, wherein the synthetic resin film is a polyimide film.

11. (New): The method for producing the synthetic resin film according to Claim 1, wherein:

in step (C), both ends are fixed so that substantially no tension is applied in the TD direction at an entrance of the oven, and

the synthetic resin film is a polyimide film.

12. (New): The method for producing the synthetic resin film according to Claims 1, wherein:

in step (C), both ends are fixed so that substantially no tension is applied in the TD direction

at an entrance of the oven, and

the oven comprises at least two oven units and a temperature of a first oven unit is set at 300°C or less, and

the synthetic resin film is a polyimide film.

13. (New): The method for producing the synthetic resin film according to Claim 1, wherein:

in step (C), both ends are fixed so that the distance X between the fixed ends and the width Y of the film between the fixed ends satisfy the following formula:

$20.0 \geq (Y - X)/Y \times 100 > 0.00$, and

the synthetic resin film is a polyimide film.

14. (New): The method for producing the synthetic resin film according to Claim 1, wherein:

in step (C), both ends are fixed so that substantially no tension is applied in the TD direction at an entrance of the oven, and

the oven comprises at least two oven units and a temperature of a first oven unit is set at 300°C or less, and

in step (C), both ends are fixed so that the distance X between the fixed ends and the width Y of the film between the fixed ends satisfy the following formula:

$20.0 \geq (Y - X)/Y \times 100 > 0.00$, and

the synthetic resin film is a polyimide film.

15. (New): The method for producing the synthetic resin film according to Claims 1, wherein:

step (C) comprises a substep (C-2) of stretching the film in the TD direction, and the synthetic resin film is a polyimide film.

16. (New): The method for producing the synthetic resin film according to Claim 1, wherein:

in step (C), both ends are fixed so that substantially no tension is applied in the TD direction at an entrance of the oven, and

the oven comprises at least two oven units and a temperature of a first oven unit is set at 300°C or less, and

in step (C), both ends are fixed so that the distance X between the fixed ends and the width Y of the film between the fixed ends satisfy the following formula:

$20.0 \geq (Y - X)/Y \times 100 > 0.00$, and

step (C) comprises a substep (C-2) of stretching the film in the TD direction, and

in substep (C-2), the film is stretched in the TD direction so that the distance Z between the fixed ends in the TD direction before the film is stretched and the distance W between the fixed ends after the film stretched satisfy the following formula:

$40.0 \geq (W - Z)/Z \times 100 > 0.00$, and

the synthetic resin film is a polyimide film

17. (New): The method for producing the synthetic resin film according to Claim 1, wherein:

in step (C), both ends are fixed so that substantially no tension is applied in the TD direction

at an entrance of the oven, and

in step (C), both ends are fixed so that the distance X between the fixed ends and the width Y of the film between the fixed ends satisfy the following formula:

$$20.0 \geq (Y - X)/Y \times 100 > 0.00, \text{ and}$$

step (C) comprises a substep (C-2) of stretching the film in the TD direction, and

in substep (C-2), the film is stretched in the TD direction so that the distance Z between the fixed ends in the TD direction before the film is stretched and the distance W between the fixed ends after the film stretched satisfy the following formula:

$$40.0 \geq (W - Z)/Z \times 100 > 0.00, \text{ and}$$

the synthetic resin film is a polyimide film

18. (New): A synthetic resin film produced by the method for producing the synthetic resin film according to Claim 1.

19. (New): A synthetic resin film produced by the method for producing the synthetic resin film according to Claim 1, wherein the synthetic resin film is a polyimide film.

20. (New): A synthetic resin film produced by the method for producing the synthetic resin film according to Claim 1,
wherein:

in step (C), both ends are fixed so that substantially no tension is applied in the TD direction at an entrance of the oven, and

in step (C), both ends are fixed so that the distance X between the fixed ends and the width Y of the film between the fixed ends satisfy the following formula:

$20.0 \geq (Y - X)/Y \times 100 > 0.00$, and

step (C) comprises a substep (C-2) of stretching the film in the TD direction, and

in substep (C-2), the film is stretched in the TD direction so that the distance Z between the fixed ends in the TD direction before the film is stretched and the distance W between the fixed ends after the film stretched satisfy the following formula:

$40.0 \geq (W - Z)/Z \times 100 > 0.00$, and

the synthetic resin film is a polyimide film.